

32. (Amended) The method of claim 31 wherein said cognitive disorder is selected from the group consisting of degenerative dementia, senile dementia, Alzheimer's disease, Pick's disease, Huntington's chorea, Parkinson's disease, Creutzfeldt-Jakob disease, vascular dementia, multi-infarct dementia, dementia associated with intracranial space occupying lesions, trauma, infections, metabolism, toxins, anoxia, and vitamin deficiency; and mild cognitive impairment associated with aging.

33. (New) The method of claim 31, wherein said cognitive disorder is dementia.

34. (New) The method of claim 31, wherein said cognitive disorder is Alzheimer's disease.

35. (New) 4-[2-(3-fluoro-phenyl)-6-trifluoromethyl-pyrazolo[1,5-a]pyridin-3-yl]-benzenesulfonamide.

Remarks

Currently Claims 1-10, 13-14 and 17-35 are pending. Applicants acknowledge with appreciation the Examiner's indication that claims 1-10, 17, 18 and 35 are allowed. Claims 26-32 are amended as discussed below.

Improper Withdrawal of Claims

The Office Action states that claims 19-25 and 30-34 are withdrawn from consideration. However, the Office Action fails to provide any reasons for the withdrawal. As explained in the previous response and during the teleconference, there is no basis for the withdrawal of claim 24 in view of the proceeding examination of claim 13. Claim 13 is directed toward the treatment of animals while claim 24 is directed toward the same methods of treatment in humans. Restriction between these claims is improper. Applicants further respectfully remind the Examiner that it was previously agreed that all previously non-elected process and method claims would be examined upon an indication of allowability of compound claims of the same scope. The Office Action states that compound claims 1-8, 17 and 35 are allowed. Allowed compound claim 1 is of the same scope as the remaining previously

non-elected claims. Accordingly Applicants respectfully request that examination of all currently pending claims proceed.

Section 112, First Paragraph Rejections Overcome

Claims 13 and 14 currently stand rejected, the Office Action stating that "the claim is not supported by either a specific asserted utility or a well established utility for the reasons set forth above." Applicants respectfully traverse this rejection.

The rejection is improper for failing to clearly state the grounds for the rejection. MPEP 707.07(d). It is respectfully noted that the Office Action states that the rejection is pursuant to section 112, first paragraph, however the Office Action provides no reasons relating to enablement, written description or best mode for the rejection. The reasons for rejection refer to utility considerations but the claim is not rejected under section 101. The Examiner is respectfully referred to MPEP section 706.03(a)(1). Further although the quoted portion of the Office Action indicates that the reasons for the utility rejection are "set forth above," in fact there are no reasons given in the preceding portion of the Office Action.

Following is Applicants attempt to address the Examiner's concern despite the deficiencies of the outstanding Office Action. It is respectfully requested that should the Examiner maintain the rejection of claims 13 and 14 under section 112, first paragraph, the precise grounds, including a clear statement of the reasons why the claim either is not enabled or lacks written description under section 112, be set forth in the next communication. If the Examiner chooses to maintain a utility rejection, the proper statutory basis for such rejection should be set forth, thereby enabling Applicants to provide a full and appropriate response to the rejection.

The Office Action states that "the claimed invention is not supported by either a specific asserted utility or a well established utility," and "the inhibition of an enzyme must be related to a disease that needs to be improved and this disease needs to be recited." Applicants respectfully traverse this point.

Preliminarily, Applicants point out that claim 14 recites a method of treating an inflammatory disorder. Treatment of an inflammatory disorder is clearly a specific asserted utility. The Office Action provides no logical grounds for rejection of this claim based on the language employed by the claim. Withdrawal of the rejection with respect to this claim is respectfully requested.

Aside from the specific utility for the treatment of an inflammatory disorder, Applicants' specification sets forth numerous other specific asserted uses for the instantly claimed compounds on pages 7 and 8. Among the numerous examples of specific uses for the claimed invention include the treatment of conditions mediated by selective inhibition of COX-2, and even more particularly conditions or diseases such as rheumatoid arthritis and osteoarthritis are specifically recited. For the sake of brevity, Applicants will not repeat here all of the specific uses set forth in the specification. The Examiner is referred to pages 7 and 8 for further specific examples of conditions or diseases for which the claimed invention has utility.

Applicants further respectfully submit that the treatment of conditions mediated by selective inhibition of COX-2 is a well-established utility. Applicants respectfully point out that two approved COX-2 inhibitor drug products (CELEBREX® and VIOXX®) each valued at over a billion dollars a year, provide ample evidence of the well-established utility of drugs which treat conditions mediated by selective inhibition of COX-2. The vast amount of literature surrounding these products and COX-2 generally clearly demonstrates the utility of drugs which selectively inhibit COX-2. As one specific example, the Examiner is referred to U.S. Patent No. 5,474,995, granted 12 Dec 1995 (copy provided), which discloses and claims compounds having utility for the treatment of conditions mediated by selective inhibition of COX-2. As an aside, Applicants refer the Examiner to claim 25 of the '995 patent wherein the patentee has claimed methods of "treating cyclooxygenase mediated diseases." Clearly, there is ample literature evidence to establish the utility of drug candidates which treat conditions mediated by selective inhibition of COX-2. Applicants have provided both specific asserted utility and evidence of well-established utility for the claimed

invention. Accordingly, the application and claims are in compliance with 35 U.S.C. section 101 and withdrawal of this rejection is respectfully requested.

The Office Action further states that there is "no reasonable assurance that the compounds will have the alleged properties." Applicants respectfully remind the Examiner that the burden of establishing non-enablement falls on the Examiner. The Examiner must provide objective evidence establishing why one skilled in the art would doubt asserted utility. MPEP 2164.04. The above-quoted statement is merely conclusory and provides no objective evidence why one skilled in the art would doubt that that claimed compounds would be useful for the treatment of conditions mediated by selective inhibition of COX-2. Given the disclosure of the '995 patent, one skilled in the art would have no reason to doubt the utility of the instantly claimed compounds. Accordingly, the rejection under section 112, is improper and withdrawal is respectfully requested.

Applicants further respectfully direct the Examiner to the Examples on pages 34 and 35 of the instant specification where data is provided demonstrating the biological activity of the instantly claimed compounds with respect to the inhibition of COX-2. The correlation between inhibition of COX-2 and the treatment of the variously recited conditions is well-established in the literature as exemplified by Applicants' reference above to the approved COX-2 inhibitor drug products, the literature regarding COX-2 and the '995 patent. Accordingly, it is respectfully submitted that the instantly pending claims are in compliance with section 112, and withdrawal of this rejection is respectfully requested.

Claims 26-27 stand rejected under 35 U.S.C. Section 112, first paragraph, the Office Action stating that the specification does not provide enablement for all of the various diseases many of which are unrelated. Applicants respectfully traverse this rejection.

As the Examiner has indicated one key factor in determining whether undue experimentation is required to make and use the claimed invention is the state of the prior art. The state of the art teaches that the various conditions recited in Applicants'

specification are indeed related in that they are all conditions which are mediated by COX-2. Literature references, such as the '995 patent clearly establish that such conditions can be treated by compounds which selectively inhibit COX-2. At column 7 lines 31-66, the '995 patent discusses some of the various conditions which in 1995 were known to be treatable with a selective inhibitor of COX-2. Accordingly, as of 1995, it was known in the art that the variously recited conditions and diseases can be treated with a selective COX-2 inhibitor. The instantly pending claims satisfy the requirements of section 112, first paragraph and withdrawal of this rejection is respectfully requested.

Section 112, Second Paragraph Rejection Overcome

Claim 28 Currently stands rejected under 35 U.S.C. Section 112, second paragraph, the Office Action stating that the claims are indefinite for use of the term "pain." Applicants respectfully traverse this rejection.

The proper standard for examining claims under section 112, second paragraph is whether one skilled in the art would understand the metes and bounds of the claims. In determining compliance with this standard, terms are given their ordinary and accepted meaning in the art. The term "pain" is in common usage and an ordinary and accepted meaning of the term can be found in any dictionary. Applicants have employed that term in a manner consistent with its ordinary and accepted meaning. Accordingly, one skilled in the art would understand that the term "pain" encompasses all forms of pain, consistent with the ordinary and accepted meaning of this term. The claim language is in compliance with section 112, second paragraph and withdrawal of this rejection is respectfully requested.

Claims 26-29 currently stand rejected under 35 U.S.C. Section 112, second paragraph, the Office Action stating that the claims are indefinite. Claims 26-32 have been amended to recited that the methods of treatment are for a human subject suffering from the stated condition. The foregoing amendment is believed to overcome the instant rejection. Withdrawal of this rejection is respectfully requested.

Outstanding Formalities

Applicants have previously requested a fully initialed copy of the PTO Form-1449 mailed 28 September 2001. Such copy was not provided with the outstanding Office Action. In the previously provided initialed copy of this PTO Form-1449, the Examiner has crossed off the Foreign Patent References and Other Documents that were submitted with the IDS mailed 28 September 2001. During the telephone interview, the Examiner indicated that the references were crossed off because copies of such references were not received by the Examiner. Applicants provided duplicate copies of all such references with the response filed 22 February 2002, together with the stamped postcard indicating that all 21 cited references were received by the Office. The Examiner is respectfully requested to consider the cited references and return a duly initialed copy of the PTO Form-1449 with the next communication.

Applicants respectfully submit that the instant application is in condition for allowance, which action is respectfully requested. The Examiner is invited to contact the undersigned at 483-8222, to discuss this case further if desired.

Respectfully submitted,



Lorie Ann Morgan
Attorney for Applicants
Registration No. 38,181

Date: 15 August, 2002
GlaxoSmithKline
Five Moore Drive, PO Box 13398
Research Triangle Park
North Carolina 27709
(919) 483-8222
fax: (919) 483-7988

26. (Amended) A method for the prophylaxis or treatment of a human subject suffering from a condition or disease ~~conditions and diseases~~ selected from the group consisting of pain, fever and inflammation mediated by selective inhibition of COX-2, said method comprising administering an effective amount of a compound of formula (I) or a pharmaceutically acceptable derivative thereof as claimed in claim 1.

27. (Amended) The method according to claim 26, wherein said condition or disease is ~~conditions and diseases are~~ selected from the group consisting of rheumatic fever, symptoms associated with influenza or other viral infections, lower back pain, neck pain, headache, toothache, sprains, strains, myositis, neuropathic pain, synovitis, arthritis, rheumatoid arthritis, degenerative joint diseases, osteoarthritis, gout, ankylosing spondylitis, tendinitis, bursitis, psoriasis, eczema, burns, dermatitis, sports injuries, injuries arising from surgical procedures and injuries arising from dental procedures.

28. (Amended) A method for the prophylaxis and treatment of a human subject suffering from pain, said method comprising administering an effective amount of a compound of formula (I) as claimed in claim 1.

29. (Amended) A method for the prophylaxis and treatment of a human subject suffering from arthritis, said method comprising administering an effective amount of a compound of formula (I) as claimed in claim 1.

30. (Amended) A method for the prophylaxis and treatment of a human subject suffering from a condition ~~conditions~~ involving inflammatory processes, said method comprising administering an effective amount of a compound of formula (I) as claimed in claim 1, wherein said condition ~~conditions~~ involving inflammatory processes are selected from the group consisting of asthma, allergic rhinitis, respiratory distress syndrome, inflammatory bowel disease, Crohn's disease, gastritis, irritable bowel syndrome, ulcerative colitis, vascular disease, migraine, periarteritis nodosa, thyroiditis, aplastic anemia, Hodgkin's disease, scleroderma, type I diabetes, myasthenia gravis, multiple sclerosis, sarcoidosis, nephrotic syndrome, Bechet's syndrome, polymyositis, gingivitis, conjunctivitis and myocardial ischemia.

Marked-up Claims

31. (Amended) A method for the prophylaxis or treatment of a human subject suffering from a cognitive disorder ~~disorders~~, said method comprising administering an effective amount of a compound of formula (I) as claimed in claim 1.

32. (Amended) The method of claim 31 wherein said cognitive disorder is ~~disorders are~~ selected from the group consisting of degenerative dementia, senile dementia, Alzheimer's disease, Pick's disease, Huntington's chorea, Parkinson's disease, Creutzfeldt-Jakob disease, vascular dementia, multi-infarct dementia, dementia associated with intracranial space occupying lesions, trauma, infections, metabolism, toxins, anoxia, and vitamin deficiency; and mild cognitive impairment associated with aging.